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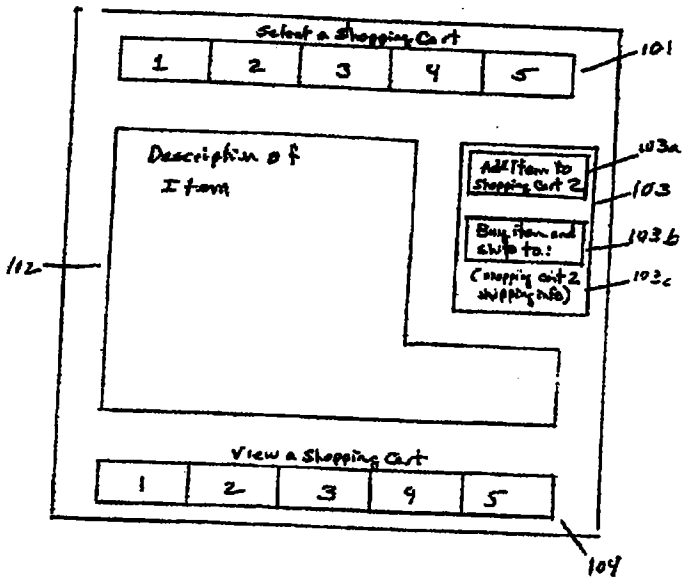
(54) **PROCEDE ET SYSTEME DE COMMERCE ELECTRONIQUE UTILISANT PLUSIEURS ROLES**

(54) **METHOD AND SYSTEM FOR ELECTRONIC COMMERCE USING MULTIPLE ROLES**



(57) L'invention concerne un système informatique de commerce électronique fournissant plusieurs "chariots" électroniques à chaque utilisateur. Chacun de ces chariots électroniques comprend une indication des articles contenus dans ce chariot, ainsi que des données relatives à la facturation et à l'expédition de ces articles. Ce système produit par ailleurs un affichage destiné à identifier chaque chariot électronique et à envoyer l'affichage ainsi produit à un système informatique utilisateur. Le système de cette invention reçoit ensuite,

(57) A computer system for conducting electronic commerce. The system provides multiple electronic shopping carts for each user. Each electronic shopping cart has an indication of items currently within the electronic shopping cart and billing and shipment information. The system generates a display that identifies each of the electronic shopping carts and sends the generated display to a user computer system. The system then receives a selection of one of the identified electronic shopping carts from the user computer system

submitted while in that context, and describing past activity electronic commerce activity while in that context.

Figure 1 is a diagram of the display illustrating the use of a shopping cart for each electronic commerce context. The display includes the shopping cart selection navigation bar 101, item detailed description 102, selection box 103, and shopping cart viewing navigation bar 104. The selection navigation bar contains an area for each of five shopping carts or electronic commerce contexts. Each shopping cart is currently identified by a number between one and five. The shopping cart identified by numbered 2 is currently selected as indicated by shading. The item detailed description contains information describing the item currently selected by the user. This information may include pricing data, availability data, and a general description of the item. The selection box contains an add-to shopping cart button 103a and single-action ordering button 103b. The use of single-action ordering is described in U.S. Patent Application No. 08/928,951 entitled "Method and System for Placing a Purchase Order Via a Communications Network," which is hereby incorporated by reference. The text 103c contains shipment information for the currently selected shopping cart as a reminder to the user. The viewing navigation bar contains an area for each shopping cart. Initially, it may be that no shopping carts or only one shopping cart has been defined. In which case, the selection navigation bar may be initially not displayed or displayed with one area. As a user dynamically adds and deletes shopping carts, the selection navigation bar is adjusted accordingly.

When a user selects a shopping cart from the selection navigation bar, the selected shopping cart becomes the current shopping cart, which changes the electronic commerce context. The information in the selection box is updated each time a different shopping cart is selected to reflect the currently selected shopping cart. When a user selects the add-to shopping cart button, the currently selected item is added to the currently selected shopping cart. When a user selects the single-action ordering button, an order is automatically placed for

Figure 3 is a diagram illustrating the display after a user has modified information relating to some of the shopping carts. In this example, the shopping cart selection navigation bar 301 indicates that the first three shopping carts have the identifiers "work books," "cookbooks," and "Johnny's books," respectively. The user has not modified the default identifier for shopping carts 4 and 5. The shopping cart viewing navigation bar 304 also indicates the updated identifiers. The information in the selection box 303 contains information relating to the currently selected shopping cart -- "Johnny's books."

Figure 4 is a block diagram illustrating an embodiment of the present invention. This embodiment supports electronic commerce with multiple contexts over the Internet using the World Wide Web. The server system 410 includes a server engine 411, various Web pages 412, a user database 413, and the multiple electronic commerce context ("MECC") system (or multiple shopping cart system in one embodiment). The server engine receives HTTP requests to access Web pages identified by URLs and provides the Web pages to the various client systems. Such an HTTP request may indicate that the purchaser has performed the single action to select a different shopping cart or electronic context. The user database includes purchaser-specific order information such as the name of the user and electronic commerce context ("ECC") profile information for each electronic commerce context. The MECC system contains various components that perform the functions of multiple electronic commerce context. Various components are described below in detail. The client system 420 contains a browser 421. The server and client systems interact by exchanging information via communications link 430, which may include transmission over the Internet.

One skilled in the art would appreciate that the multiple electronic commerce context techniques can be used in various environments other than the Internet. For example, the techniques can be used in a single computer system environment rather than in a client/server environment. Also, various communication channels may be used such as local area network, wide area

data structure may also contain activity information describing electronic commerce activity conducted while a user is in each electronic commerce context. This activity information may track items added to a shopping basket, banner advertisements selected, and Web sites visited when in that electronic commerce context. The activity information may be collected by logging and tagging the activity with the current electronic commerce context. The MECC system can then use this collected activity information to, for example, customize advertising or recommendations while the user is in a certain electronic commerce context.

Figures 6-11 illustrate one embodiment of various components of the multiple electronic commercial context ("MECC") system in the WWW environment. Figure 6 is a flow diagram of a routine that processes the selection of the new electronic commerce context. In one embodiment, when a user selects a new context from a shopping cart selection navigation bar, a URL is sent to the server computer system. That URL contains information identifying the new context. This routine performs the processing to switch the electronic commerce context and generate the appropriate displays. In step 601, the routine retrieves the context ID (or other identifying information) from the URL received from the client. In step 602, the routine sets the current context ID for the user. In step 603, the routine generates a display (*e.g.*, and HTML document) for the current context. The generation of the display is described in detail in Figure 7. In step 604, the routine sends the generated display to the user's client system. The routine then completes.

Figure 7 is a flow diagram of a routine that generates a display for the current context. This routine retrieves the electronic commerce context ("ECC") profile information for the current context ID and generates the display accordingly. In this embodiment, the generated display is described in a HTML document. In step 701, the routine retrieves the current context ID for the user. In step 702, the routine retrieves the ECC profile information for the retrieved context ID. In step 703, the routine generates a context selection navigation bar

a context. In step 1001, the routine retrieves the context ID from the URL. Alternatively, the context ID can be retrieved from a mapping of a certain key (*e.g.*, ID or user ID) to context ID. In step 1002, the routine retrieves the ECC profile information for the retrieved context ID. In step 1003, the routine changes the ECC profile information. In step 1004, the routine updates the ECC profile information for the retrieved context ID in the user database. The routine then completes.

Figure 11 is a flow diagram of a routine that stores information on the electronic commerce activity of a user. The multiple electronic commerce context ("MECC") system may track various user activity that occurs while in each context. For example, the MECC system may track items that the user viewed, items that the user purchased, or links that the user assessed while in a context. In step 1101, the routine retrieves the current context ID for the user. In step 1102, the routine categorizes the electronic commercial activity (*e.g.*, "viewing" or "selecting" an item). In step 1103, the routine retrieves the electronic commerce context ("ECC") profile information for the current context ID for the categorization. In step 1104, the routine updates the activity information to the ECC profile information. In step 1105, the routine updates the ECC profile information for the current context ID. The routine then completes.

Another embodiment of the present invention provides a method and system for limiting the scope of the electronic commerce that may be conducted while in an electronic commerce context ("ECC"). For example, if the electronic commerce is the purchasing of video tapes, then the user, when purchasing video tapes for a child, may want to limit displaying of information to only those video tapes with a family-oriented rating ("G"). The multiple electronic commerce context ("MECC") system limits the scope of electronic commerce by allowing the user to define filters that can be applied to an ECC. For example, the items available to be purchased may have various attributes (*e.g.*, cost, rating, or general categorization such as documentary) associated with them. The MECC system may input from the user a series of filter criteria that

engages in interactions while that interaction context is currently specified, the associated information is available to influence the interaction. For example, if the interaction is the use of a search engine, then a user may use one interaction context for home and another interaction context for work. If the user is normally interested in legal documents when at work, then the work interaction context information would relate to legal documents. In contrast, if the user is normally interested in sports documents when at home, then the home interaction context information would relate to sports documents. Thus, when the user inputs a search for the word "court," the search engine may identify an entirely different set of related documents depending on whether the work or home interaction context is currently selected.

From the foregoing it will be appreciated that, although specific embodiments of the invention have been described herein for purposes of illustration, various modifications may be made without deviating from the spirit and scope of the invention. For example, the multiple electronic commerce context ("MECC") system may provide a facility to "reset" a context to default values or to "copy" a context. That is, if a user needs to change certain context information (*e.g.*, billing and shipment information), the user can indicate to "reset" or "copy" a context. When a context is "reset," its information may be reset to certain initial values. When a context is "copied," the information of the context replaces the information of another context. Also, in various embodiments, the shopping cart selection navigation bar can be used for dragging-and-dropping items into the various shopping carts. For example, a user may select an item by depressing a button on a pointing device, then drag the selected item to the selection navigation bar, and drop the item into a shopping cart by releasing the button. When an item is dragged-and-dropped into a shopping cart, the MECC system may also change the currently selected shopping cart to the shopping cart into which the item has been dropped or maintain the current selection of a shopping cart. Also, a shopping cart (or more generally an aggregation) can function as a gift registry. That is, a user can

Claims

1. A method for conducting electronic commerce, the method comprising:

selecting one of a plurality of electronic commerce contexts for a user; and

after selecting an electronic commerce context, conducting electronic commerce

whereby the conducted electronic commerce is associated with the selected electronic commerce context.

2. The method of claim 1 including displaying selection navigation information that indicates each of the plurality of electronic commerce contexts.

3. The method of claim 2 wherein the selecting is performed by a single action relating to the displayed selection navigation information.

4. The method of claims 1, 2, or 3 wherein each electronic commerce context has an associated electronic shopping cart.

5. The method of claims 1, 2, 3, or 4 wherein the conducting of electronic commerce includes selecting items to purchase.

6. The method of claims 1, 2, 3, 4, or 5 wherein each of the plurality of electronic commerce contexts has associated information relating to electronic commerce conducted while that electronic commerce context was selected.

7. The method of claims 1, 2, 3, 4, 5, or 6 including displaying viewing navigation information that indicates each of the plurality of electronic commerce contexts.

8. The method of claim 7 wherein when an electronic commerce context is selected from the viewing navigation information, information relating to that electronic commerce context is displayed.

9. The method of claims 1, 2, 3, 4, 5, 6, 7, or 8 wherein the user supplies an identifier for each electronic commerce context.

10. The method of claims 1, 2, 3, 4, 5, 6, 7, 8, or 9 wherein no electronic commerce context is initially provided.

11. The method of claim 10 wherein a user provides multiple electronic commerce contexts.

12. The method of claims 1, 2, 3, 4, 5, 6, 7, 8, or 9 wherein only one electronic commerce context is initially provided.

13. The method of claim 12 wherein the user provides additional electronic commerce contexts.

14. The method of claims 1, 2, 3, 4, 5, 6, 7, 8, or 9 wherein multiple electronic commerce contexts are initially provided.

15. The method of claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, or 14 including limiting the electronic commerce conducted to a scope that has been specified for the selected electronic commerce context.

16. The method of claim 15 wherein the scope is specified by a filter that is applied when electronic commerce is conducted.

17. The method of claim 15 wherein the limiting includes displaying only those items that satisfy a certain criteria.

18. The method of claim 15 wherein the limiting includes allowing purchase of only those items that satisfy a certain criteria.

19. The method of claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, or 18 wherein

each electronic commerce context has information relating to electronic commerce conducted while in that electronic commerce context and including:

associating, with the selected electronic commerce context, information relating to the electronic commerce conducted with the user so that when the user subsequently selects that selected electronic commerce context from the plurality of electronic commerce contexts, the associated information is available for conducting subsequent electronic commerce.

20. The method of claim 19 wherein the electronic commerce includes selecting items and the information includes the identity of the items previously selected.

21. The method of claim 20 including presenting to the user a recommendation for items based on items previously selected while in the currently selected electronic commerce context.

22. The method of claim 20 including presenting to another user a recommendation for items based on items previously selected by the user while in a certain electronic commerce context.

23. The method of claim 22 wherein the other user selects an item as a gift for the user.

24. The method of claim 22 including providing to another user a list of items selected in one of the electronic commerce contexts.

25. The method of claim 24 wherein the other user purchases one of the items in the list as a gift for the user.

26. The method of claim 25 wherein the purchased gift is shipped to the user in accordance with the electronic commerce context in which the item was selected.

27. The method of claim 19 wherein the user establishes a connection when conducting electronic commerce and including persistently storing the information so that the information is available when the user next establishes a connection.

28. The method of claim 27 wherein the information includes items selected to be ordered but that have not yet been ordered.

29. The method of claim 19 wherein each electronic commerce context has associated billing information relating to electronic commerce conducted while in that electronic commerce context.

30. The method of claim 19 wherein each electronic commerce context has associated shipment information relating to electronic commerce conducted while in that electronic commerce context.

31. The method of claim 19 wherein the receiving of a selection includes sending to the user an indication of each of the plurality of electronic commerce contexts.

32. The method of claim 31 wherein the sent indications are to be displayed simultaneously to the user for selection of one of the indications.

33. The method of claim 32 wherein the selection is performed with a single action by the user.

34. The method of claim 32 wherein the selection is performed by a click of a pointing device.

35. The method of claim 19 including receiving from the user an identifier for an electronic commerce context.

36. The method of claim 35 wherein each electronic commerce context is identified by the identifier received from the user.

37. The method of claim 36 wherein each electronic commerce is derivable from the identifier received from the user.

38. The method of claim 19 wherein single-action ordering is enabled and all single-action ordering is relative to the selected electronic commerce context.

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depuis ce système informatique utilisateur, un chariot choisi parmi ces chariots électroniques identifiés, ainsi qu'un article choisi, et en réponse, le système ajoute cet article choisi audit chariot électronique choisi. Puis ce système reçoit une indication permettant de vérifier les articles contenus dans ce chariot électronique choisi, depuis ledit système informatique utilisateur. En réponse à cette indication, le système expédie par la suite les articles du chariot électronique choisi, selon les données relatives à l'expédition des articles de ce chariot, ainsi que les factures des articles contenus dans ce dernier, ces factures étant établies conformément aux données relatives à la facturation des articles dudit chariot électronique choisi. Le système de cette invention permet donc à un utilisateur de choisir chacun des chariots électroniques pour ajouter des articles dans chacun d'entre eux.

and receives a selection of an item from the user computer system. In response to receiving the selection of the item, the system adds the item to the selected electronic shopping cart. The system then receives an indication to checkout the items in the selected electronic shopping cart from the user computer system. In response to receiving the indication to checkout, the system ships the items in the selected electronic shopping cart in accordance with the shipment information of the selected electronic shopping cart and bills for the items in the selected electronic shopping cart in accordance with the billing information for the selected electronic shopping cart. The system thus allows a user to select each of the electronic shopping carts for adding items to each electronic shopping cart.

52. A computer-readable medium containing instructions for causing a computer system to conduct electronic commerce, by:

providing a plurality of electronic commerce contexts for a user;

receiving from the user a selection of one of the plurality of electronic commerce contexts; and

after receiving the selection of the one of the plurality of electronic commerce contexts, conducting electronic commerce with the user in the selected electronic commerce context.

53. The computer-readable medium of claim 52 wherein the electronic commerce includes selecting items and the computer system maintains information for the selected electronic commerce context that includes the identity of the items previously selected.

54. The computer-readable medium of claim 53 including presenting to the user a recommendation for items to select based on items previously selected while in the currently selected electronic commerce context.

55. The computer-readable medium of claim 53 including presenting to another user a recommendation for items to select based on items previously selected by the user while in a certain electronic commerce context.

56. The computer-readable medium of claim 55 wherein an item selected by the other user is a gift for the user.

57. The computer system of claim 41 wherein the component that conducts electronic commerce includes limiting the electronic commerce conducted to a specified scope for the selected electronic commerce context.

58. The computer system of claim 57 wherein the scope is specified by a filter that is applied when electronic commerce is conducted.

59. The computer system of claim 57 wherein the limiting includes displaying only those items that satisfy a certain criteria.

60. The computer system of claim 57 wherein the limiting includes allowing purchase of only those items that satisfy a certain criteria.

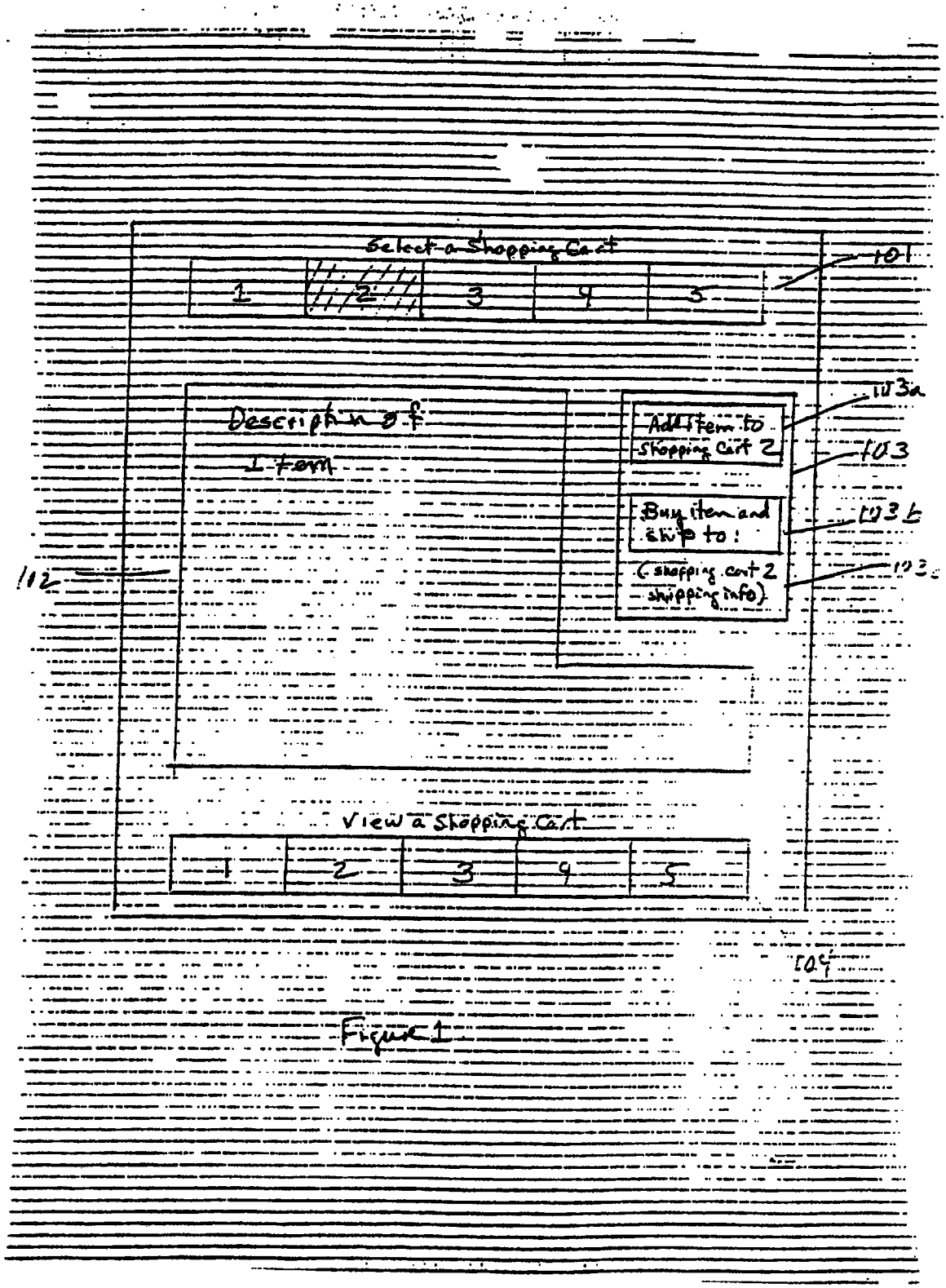
Select a Shopping Cart
1
2
3
4
5
101
Description of Item
103a
Add Item to Shopping Cart 2
103
Buy item and ship to:
103b
(shopping cart 2 shipping info)
103c
102
View a Shopping Cart
1
2
3
4
5
104

Figure 1

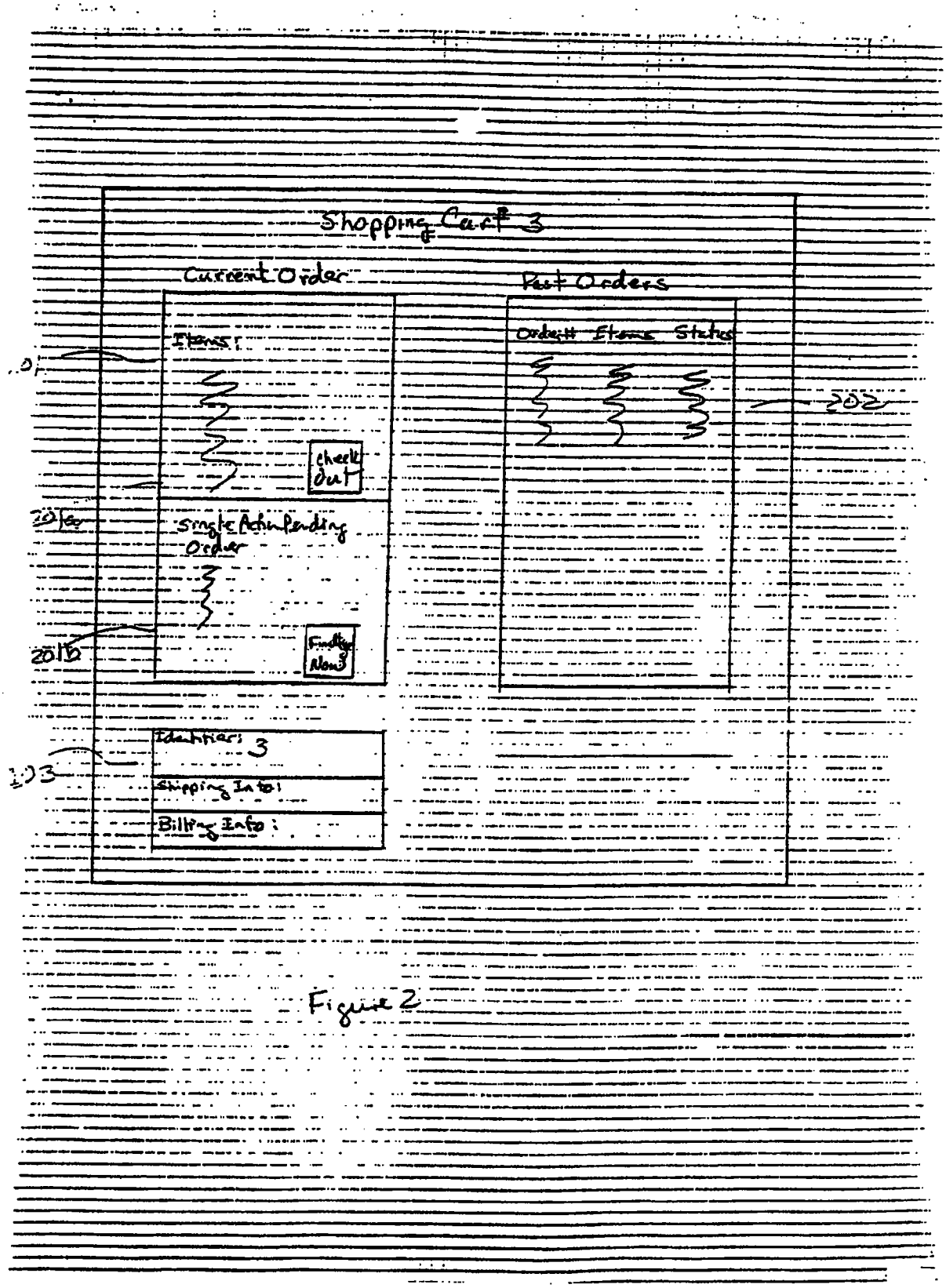
Shopping Cart 3
Current Order
Items:
check out
Single Active Pending Order
Identifier: 3
Shipping Info:
Billing Info:
Past Orders
Order # Items Status
201
202
203

Figure 2

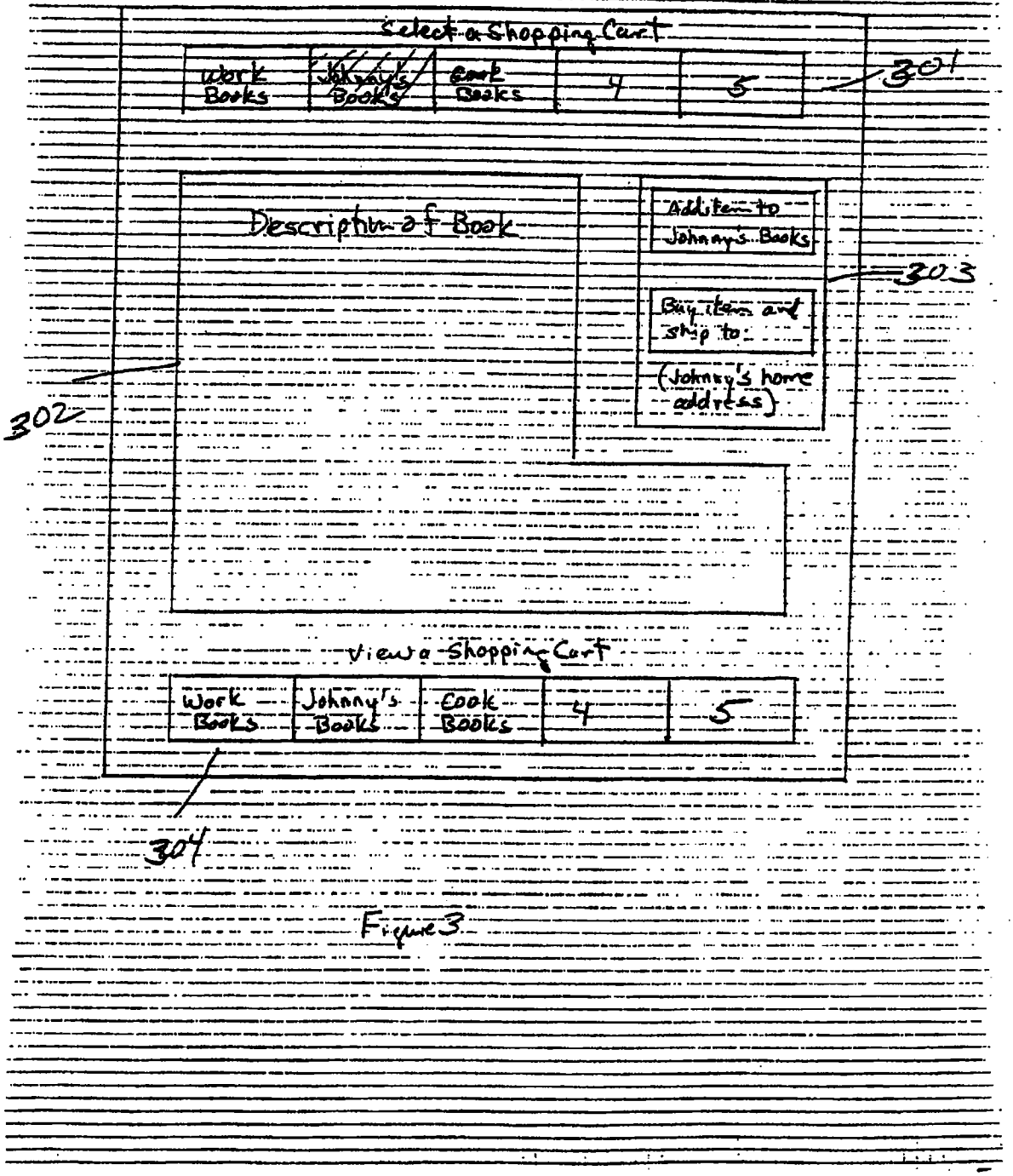
Select a Shopping Cart
Work Books
Johnny's Books
Cook Books
4
5
301
Description of Book
Add item to Johnny's Books
303
Buy item and ship to:
(Johnny's home address)
302
View a Shopping Cart
Work Books
Johnny's Books
Cook Books
4
5
304

Figure 3

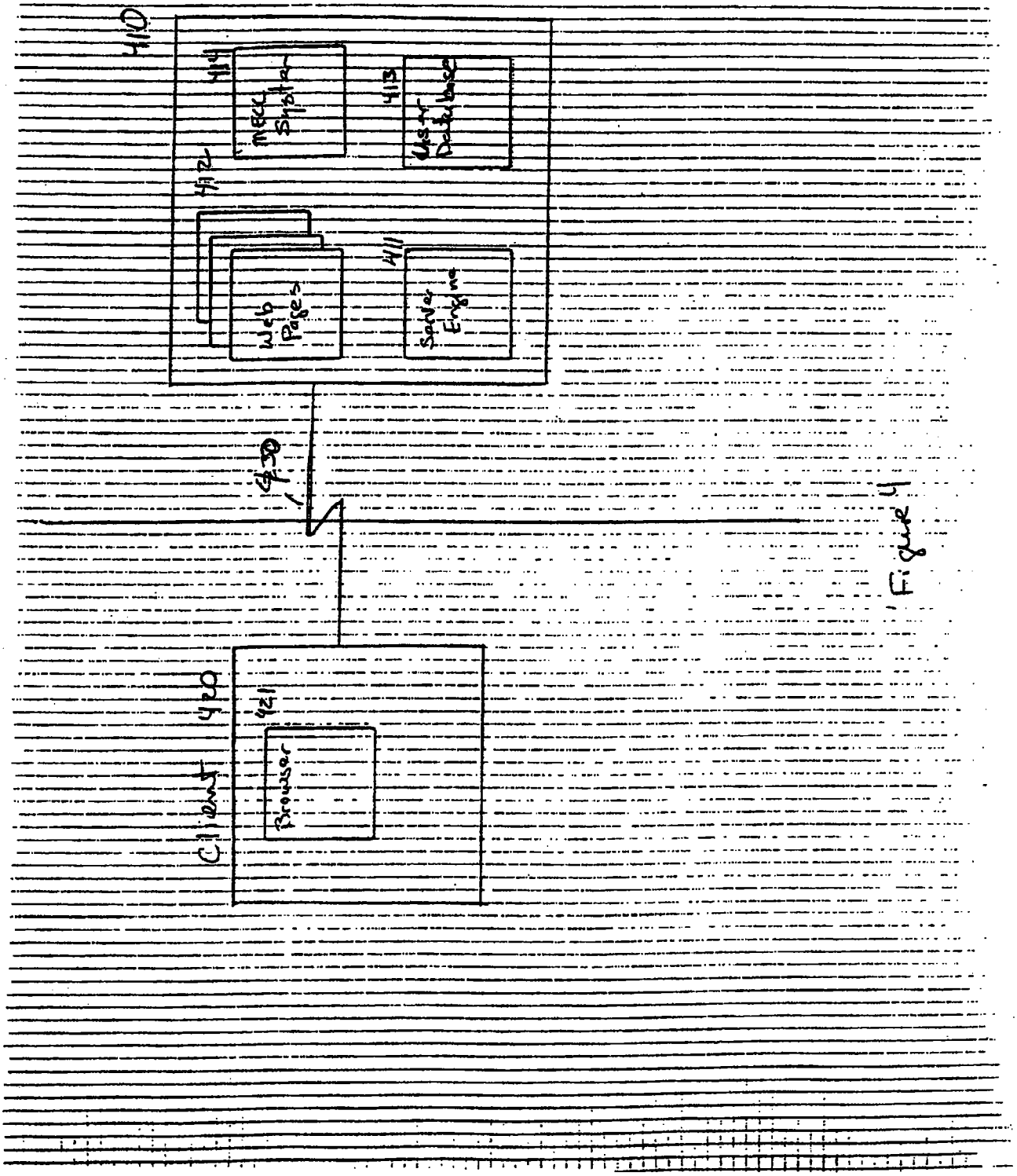
410
414
Mail Spooler
413
User Database
412
Web Pages
411
Server Engine
430
420
421
Client
Browser

Figure 4

USER TABLE

USER ID	NAME	EMAIL
JSmith	Smith, J	JSmith@...
JDoe	Doe, J	JDoe@
:	:	:

501

CONTEXT MAPPING TABLE

USER ID	CONTEXT ID
JSMITH	204
JSMITH	220
JDOE	229
JDOE	205
JDOE	175
:	:

502

CONTEXT TABLE

CONTEXT ID	NAME	E-ADDRESS	...
175	WORK	1215	
204	JOHNNY'S		
205	FICTION		
220	MOTHER-IN-LAW		
229	NON-FICTION		
:	:		

503

Figure 5

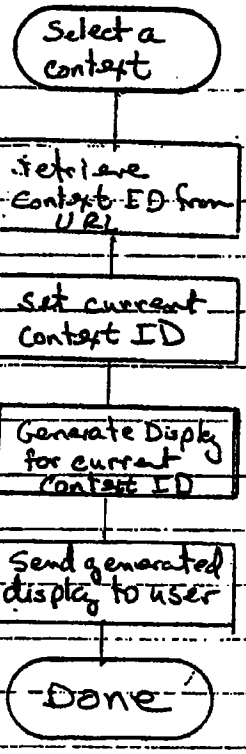
Select a context
601
Retrieve Context ID from URL
602
Set current Context ID
603
Generate Display for current Context ID
604
Send generated display to user
Done

Figure 6

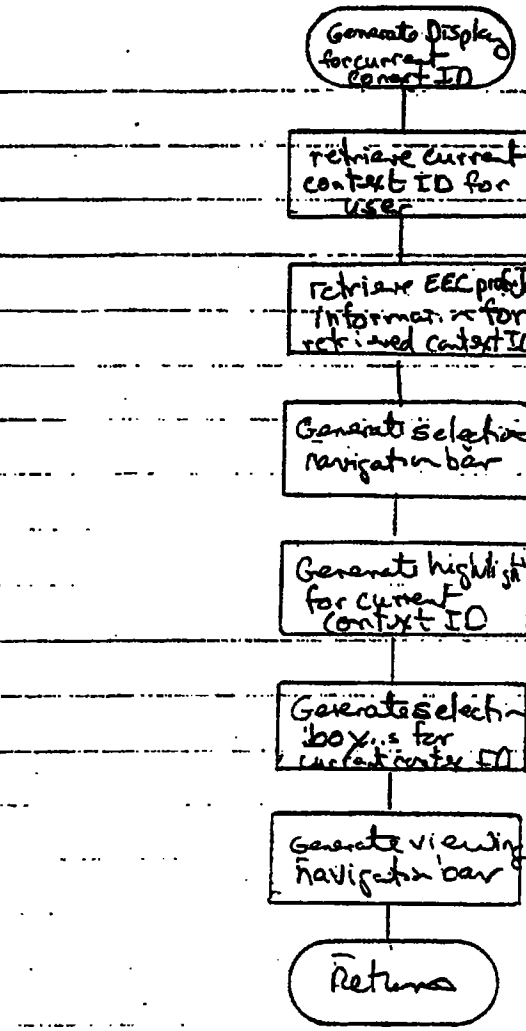
Generate Display for current context ID
701
retrieve current context ID for user
702
retrieve EEC profile information for retrieved context ID
703
Generate selection navigation bar
704
Generate highlight for current context ID
705
Generate selection boxes for current context ID
706
Generate viewing navigation bar
Return

Figure 7

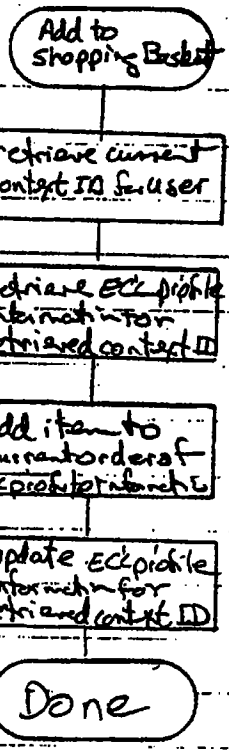
Add to Shopping Basket
retrieve current context ID for user
801
retrieve ECK profile information for retrieved context ID
802
add item to current order of ECK profile for retrieved context ID
803
update ECK profile information for retrieved context ID
804
Done

Figure 8

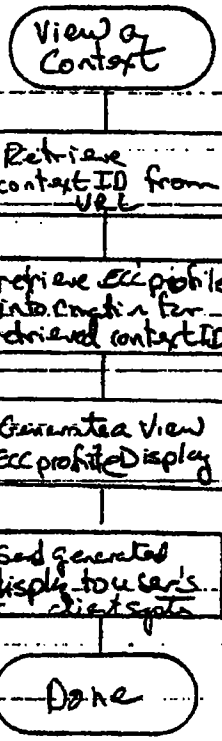
View a Context
Retrieve contextID from URL
901
retrieve ECC profile info. Corresponding to retrieved contextID
902
Generate a View ECC profile Display
903
Send generated display to user's client Spot
904
Done

Figure 9

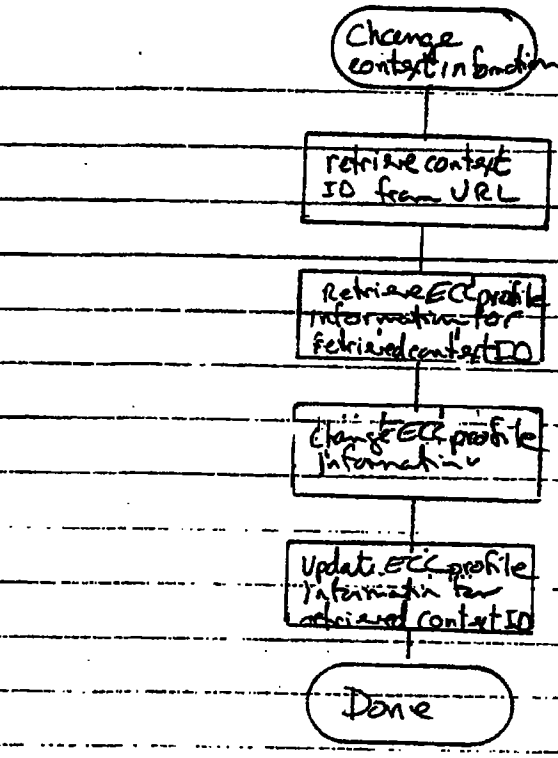
Change context in function
retrieve context ID from URL
1001
Retrieve ECC profile information for retrieved context ID
1002
Change ECC profile information
1003
Update ECC profile information for retrieved context ID
1004
Done

Figure 10

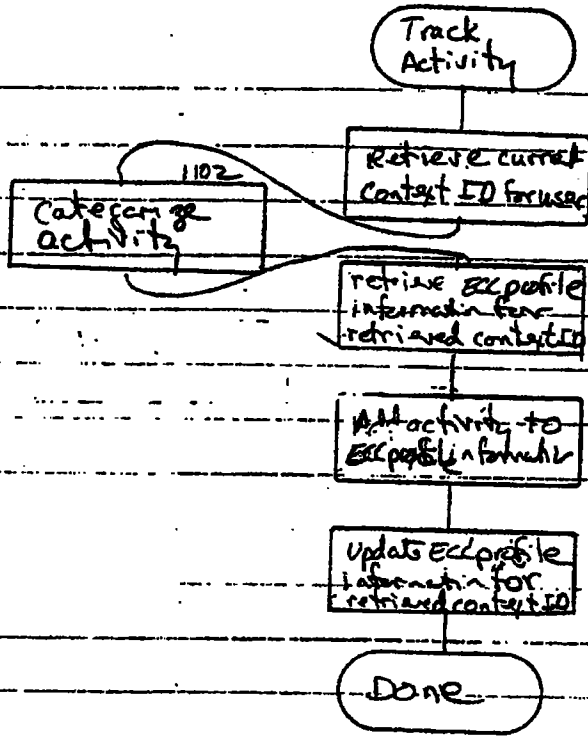
Track Activity
Retrieve current Context ID for user
1101
1102
Categorize activity
retrieve EC profile information for retrieved context ID
1103
Add activity to EC profile information
1104
Update EC profile information for retrieved context ID
1105
Done

Figure 11